

CLAIMS

1. An artificial antigen which is specifically
5 recognized by the antifilaggrin autoantibodies present
in the serum of patients suffering from rheumatoid
arthritis, which consists of a recombinant or synthetic
polypeptide comprising all or part of a sequence
10 derived from that of a filaggrin unit or of a related
molecule, by replacing at least one arginine residue
with a citrulline residue.
2. The artificial antigen as claimed in claim 1,
which consists of a peptide comprising all or part of
at least one sequence derived:
- 15 - from the sequence corresponding to amino
acids 144 to 314 of a human filaggrin unit, or
alternatively
- from the sequence corresponding to amino
acids 76 to 144 of a human filaggrin unit,
- 20 by replacing at least one arginine residue with
a citrulline residue.
3. The artificial antigen as claimed in claim 2,
which consists of a peptide comprising all or part of
at least one sequence derived from the sequence
25 corresponding to amino acids 71 to 119 of a human
filaggrin unit, by replacing at least one arginine
residue with a citrulline residue.
4. The artificial antigen as claimed in claim 1,
which consists of a peptide comprising all or part of
30 at least one sequence derived from one of the sequences
SEQ ID NO: 3, SEQ ID NO: 5, SEQ ID NO: 6, by replacing
at least one arginine residue with a citrulline
residue.
5. Use of the antigen as claimed in any one of
35 claims 1 to 4 for the *in vitro* diagnosis of rheumatoid
arthritis.
6. An antigenic composition for diagnosing the
presence of autoantibodies specific for rheumatoid

arthritis in a biological sample, which contains at least one antigen as claimed in any one of claims 1 to 4, optionally labeled and/or conjugated with a carrier molecule.

- 5 7. A method of detecting the autoantibodies specific for rheumatoid arthritis in a biological sample, which method comprises:
- bringing said biological sample into contact with at least one antigen as claimed in any one of claims 1 to
 - 10 4, under conditions allowing the formation of an antigen/antibody complex with the autoantibodies specific for rheumatoid arthritis which may be present;
 - detecting, by any appropriate means, the antigen/antibody complex which may be formed.
- 15 8. A kit for the detection of autoantibodies specific for rheumatoid arthritis in a biological sample, which comprises at least one antigen as claimed in any one of claims 1 to 4, as well as buffers and reagents appropriate for constituting a reaction medium
- 20 allowing the formation of an antigen/antibody complex, and/or means for detecting said antigen/antibody complex.